

# Laboratoire Rosier Davenne

## Certificate of Analysis

Modèle/Révision/Date de révision : BAHEFR001 / 0 / 10.07.19

Modification(s) : aucune

Editée le : 10/07/19

p1/1

### Analysed Essential oil : **Rose Bulgaria**

Analysis date : July, 10<sup>th</sup> 2019

Batch : 239ME807

Shelf life : February 2021

### ❖ General description

|               |                                 |        |          |
|---------------|---------------------------------|--------|----------|
| Essential oil | Rose Bulgaria                   | Origin | Bulgaria |
| Latin name    | <i>Rosa Damascena</i> P. Miller |        |          |

### ❖ Organoleptic characteristics

|            |                                   |
|------------|-----------------------------------|
| Appearance | Clear and mobile liquid           |
| Colour     | Light Green                       |
| Odour      | Characteristic, floral, rose-like |

### ❖ Physico-chemical characteristics

|                  | Results<br>(at 20°C) |
|------------------|----------------------|
| Specific gravity | 0.858                |
| Refractive index | 1.4605               |
| Optical rotation | -3.70°               |

### ❖ Volatile elucidation

GC : Perkin Elmer – Clarus 500

Column : Elite – WAX, 30m, Ø 0.25 mm, 0.25 µm df

Injection : split

Detector : FID

Carrier gas : H<sub>2</sub>

⇒ See Chromatogram : polar column

Date : 10 Jul. 19

Software Version : 6.3.2.0646  
Sample Name : HE Rose Bulgare 239ME807  
Instrument Name : CLARUS 500  
Rack/Vial : 0/13  
Sample Amount : 1.000000  
Cycle : 13

Date : 4/17/2019 12:15:10 PM  
Data Acquisition Time : 4/11/2019 4:31:15 AM  
Channel : B  
Operator : Ismerie  
Dilution Factor : 1.000000

Result File :  
Sequence File : C:\Sequences\CPG\2019\190410.seq

## Rapport d'analyse

colonne apolaire

| Pic # | Component Name                 | TR [min] | Area [%] |
|-------|--------------------------------|----------|----------|
| 1     |                                | 1.33     | 0.03     |
| 2     |                                | 1.55     | 0.01     |
| 3     |                                | 1.83     | 0.02     |
| 4     |                                | 1.99     | 0.01     |
| 5     | ethanol                        | 2.06     | 1.91     |
| 6     |                                | 2.46     | 0.03     |
| 7     |                                | 2.76     | 0.00     |
| 8     | pinene <alpha>                 | 2.98     | 1.24     |
| 9     |                                | 3.13     | 0.00     |
| 10    |                                | 3.58     | 0.01     |
| 11    | camphene                       | 3.80     | 0.03     |
| 12    | pinene <beta>                  | 4.29     | 0.28     |
| 13    | sabinene                       | 4.57     | 0.05     |
| 14    |                                | 5.54     | 0.01     |
| 15    | myrcene                        | 5.62     | 0.35     |
| 16    | terpinene <alpha>              | 5.91     | 0.02     |
| 17    |                                | 6.01     | 0.07     |
| 18    | limonene                       | 6.39     | 0.12     |
| 19    |                                | 6.60     | 0.04     |
| 20    | ocimene <Z-beta>               | 7.58     | 0.04     |
| 21    |                                | 7.68     | 0.05     |
| 22    | terpinene <gamma>              | 7.75     | 0.08     |
| 23    |                                | 7.89     | 0.02     |
| 24    | ocimene <E-beta>               | 8.07     | 0.06     |
| 25    |                                | 8.45     | 0.02     |
| 26    |                                | 8.89     | 0.04     |
| 27    |                                | 9.11     | 0.02     |
| 28    |                                | 10.15    | 0.02     |
| 29    |                                | 10.69    | 0.01     |
| 30    |                                | 10.98    | 0.03     |
| 31    | rose oxide <cis>               | 11.26    | 0.24     |
| 32    |                                | 11.40    | 0.24     |
| 33    |                                | 11.73    | 0.11     |
| 34    | rose oxide <trans>             | 12.40    | 0.04     |
| 35    |                                | 12.78    | 0.06     |
| 36    |                                | 13.18    | 0.01     |
| 37    |                                | 13.59    | 0.01     |
| 38    |                                | 14.44    | 0.02     |
| 39    |                                | 14.54    | 0.02     |
| 40    |                                | 15.18    | 0.02     |
| 41    |                                | 15.47    | 0.04     |
| 42    |                                | 15.87    | 0.06     |
| 43    |                                | 16.27    | 0.01     |
| 44    |                                | 16.82    | 0.10     |
| 45    |                                | 17.19    | 0.03     |
| 46    | bourbonene<beta>               | 17.28    | 0.01     |
| 47    | pentadecane                    | 17.51    | 0.10     |
| 48    | linalool                       | 18.76    | 3.15     |
| 49    |                                | 19.00    | 0.03     |
| 50    |                                | 19.29    | 0.01     |
| 51    |                                | 19.75    | 0.01     |
| 52    | caryophyllene<E>+elemene<b>+gu | 19.92    | 1.12     |
| 53    | terpinen-4-ol                  | 20.21    | 0.41     |
| 54    |                                | 20.58    | 0.01     |
| 55    |                                | 21.15    | 0.01     |
| 56    |                                | 21.23    | 0.02     |
| 57    |                                | 21.30    | 0.03     |

4/17/2019 12:15:10 PM Result:

| Pic # | Component Name                | TR [min] | Area [%] |
|-------|-------------------------------|----------|----------|
| 58    |                               | 21.75    | 0.01     |
| 59    |                               | 22.14    | 0.11     |
| 60    |                               | 22.28    | 0.06     |
| 61    | humulene <alpha>              | 22.41    | 0.15     |
| 62    | citronellyl acetate           | 22.84    | 1.11     |
| 63    |                               | 23.14    | 0.00     |
| 64    | neral                         | 23.34    | 0.03     |
| 65    | terpineol <alpha>             | 23.69    | 0.86     |
| 66    | germacrene D                  | 23.86    | 0.45     |
| 67    |                               | 24.14    | 0.01     |
| 68    | bulnesene<alpha>              | 24.25    | 0.13     |
| 69    | geranial                      | 24.71    | 0.51     |
| 70    | heptadecane <n>+neryl acetate | 25.02    | 1.11     |
| 71    |                               | 25.41    | 0.07     |
| 72    |                               | 25.60    | 0.02     |
| 73    |                               | 25.81    | 0.02     |
| 74    |                               | 25.96    | 0.01     |
| 75    | geranyl acetate               | 26.16    | 2.00     |
| 76    | citronellol                   | 26.73    | 28.19    |
| 77    |                               | 27.07    | 0.02     |
| 78    | nerol                         | 27.59    | 9.08     |
| 79    |                               | 27.81    | 0.17     |
| 80    |                               | 27.93    | 0.05     |
| 81    |                               | 28.16    | 0.07     |
| 82    | octadecane <n>                | 28.47    | 0.42     |
| 83    |                               | 28.84    | 0.02     |
| 84    |                               | 29.33    | 23.09    |
| 85    | geraniol                      | 29.38    | 0.17     |
| 86    |                               | 29.85    | 0.03     |
| 87    |                               | 30.38    | 0.01     |
| 88    | phenyl ethyl alcohol          | 30.57    | 4.00     |
| 89    | nonadecane<n>                 | 32.02    | 7.52     |
| 90    |                               | 32.14    | 1.07     |
| 91    | nonadecene                    | 32.26    | 0.02     |
| 92    |                               | 32.48    | 0.03     |
| 93    |                               | 32.64    | 0.01     |
| 94    |                               | 33.24    | 0.02     |
| 95    |                               | 33.63    | 0.01     |
| 96    | methyl eugenol                | 34.18    | 0.67     |
| 97    | eicosane <n>                  | 35.08    | 2.08     |
| 98    |                               | 35.24    | 0.05     |
| 99    |                               | 35.54    | 0.18     |
| 100   |                               | 35.65    | 0.02     |
| 101   |                               | 35.96    | 0.01     |
| 102   |                               | 36.09    | 0.02     |
| 103   |                               | 36.21    | 0.02     |
| 104   |                               | 36.30    | 0.01     |
| 105   |                               | 36.86    | 0.02     |
| 106   |                               | 36.98    | 0.00     |
| 107   |                               | 37.85    | 0.02     |
| 108   | heneicosane <n>               | 38.20    | 2.70     |
| 109   |                               | 38.31    | 0.05     |
| 110   | eugenol                       | 38.46    | 1.20     |
| 111   |                               | 38.66    | 0.02     |
| 112   |                               | 38.79    | 0.04     |
| 113   |                               | 38.95    | 0.06     |
| 114   |                               | 39.21    | 0.03     |
| 115   |                               | 39.47    | 0.03     |
| 116   |                               | 39.68    | 0.01     |
| 117   |                               | 40.00    | 0.01     |
| 118   |                               | 40.21    | 0.04     |
| 119   |                               | 40.45    | 0.02     |
| 120   |                               | 41.02    | 0.05     |
| 121   |                               | 41.56    | 0.04     |
| 122   |                               | 42.00    | 0.02     |
| 123   |                               | 42.12    | 0.03     |
| 124   |                               | 43.35    | 0.07     |
| 125   | docosane<n>                   | 43.91    | 0.36     |
| 126   | farnesene<2E,6E>              | 44.53    | 0.61     |
| 127   |                               | 44.77    | 0.05     |
| 128   |                               | 45.00    | 0.01     |
| 129   |                               | 45.20    | 0.01     |
| 130   |                               | 45.79    | 0.01     |
| 131   |                               | 46.64    | 0.02     |
| 132   |                               | 47.40    | 0.01     |

4/17/2019 12:15:10 PM Result:

| Pic # | Component Name | TR [min] | Area [%] |
|-------|----------------|----------|----------|
| 133   |                | 49.31    | 0.10     |
| 134   |                | 50.51    | 0.04     |
| 135   |                | 50.95    | 0.01     |
| 136   |                | 52.64    | 0.02     |
| 137   |                | 53.95    | 0.01     |
| 138   |                | 54.19    | 0.01     |
| 139   |                | 54.38    | 0.07     |
| 140   |                | 59.13    | 0.01     |
|       |                |          | 100.00   |

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# Chromatogram

Sample Name : HE Rose Bulgare 239ME807      Sample #: 239ME807      Page 1 of 1  
 FileName : C:\Data\Colonne Polaire\Huiles Essentielles\Rose\Rose Bulgare\2018\rose sme bulgare 181018.raw  
 Date : 10/19/2018 10:37:52 AM  
 Method : rose bulgare pure.mth      Time of Injection: 10/18/2018 8:41:33 PM  
 Start Time : 0.00 min      End Time : 82.00 min      Low Point : -23.30 mV      High Point : 540.98 mV  
 Plot Offset: -23.30 mV      Plot Scale: 564.3 mV

